

SEQUENCE LISTING

<110> Williams, Richard B.

<120> SYSTEM AND METHODS FOR NUCLEIC ACID AND
POLYPEPTIDE SELECTION

<130> PRONOV.001BPC

<150> 09/859,809

<151> 2001-05-17

<150> 60/206,016

<151> 2000-05-19

<150> 60/346,965

<151> 2001-11-16

<150> 60/529,331

<151> 2003-12-12

<150> PCT/US02/37103

<151> 2002-11-18

<150> 10/847,087

<151> 2004-05-17

<150> 60/625,707

<151> 2004-11-05

<150> 10/847,484

<151> 2004-05-17

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<212> RNA

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<223> Precursor RNA for formation of psoralentated RNA;
chemically synthesized fragment

<221> modified_base

<222> (6)...(6)

<223> n=p

<400> 1

cuagancugg agg

13

<210> 2

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<223> Furan sided psoralentated RNA fragment; chemically synthesized

<221> misc_feature

<222> (2)...(3)

<223> psoralen bound to UA

<221> modified_base

<222> (6)...(6)

<223> n=p

<400> 2

cuagancugg agg

13

<210> 3

<211> 23

<212> RNA

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<221> misc_feature

<222> (1)...(5)

<223> n=g, a, u, or c

<221> misc_feature

<222> (19)...(23)

<223> n=g, a, u, or c

<400> 3

nnnnnccucc agaucuagnn nnn

23

<210> 4

<211> 23

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<221> misc_feature

<222> (16)...(17)

<223> psoralen bound to UA

<221> misc_feature

<222> (1)...(5)

<223> n=g, a, u, or c

<221> misc_feature

<222> (19)...(23)

<223> n=g, a, u, or c

<400> 4
nnnnnccucc agaucuagnn nnn 23

<210> 5
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<223> Chemically synthesized fragment 2; psoralentated
RNA fragment

<221> modified_base
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<223> n=p

<221> misc_feature
<222> (13)...(13)
<223> psoralen bound to G

<400> 5
cuagancugg agg 13

<210> 6
<211> 30
<212> DNA
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<223> chemically synthesized fragment 3; modified tRNA;
thymine at residue 8 before pseudouridine

<221> modified_base
<222> (9)...(9)
<223> n=p

<221> misc_feature
<222> (30)...(30)
<223> n=puromycin

<400> 6
uccugugtn c gauccacaga auucgcaccn 30

<210> 7
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Chemically synthesized fragment 2+3; modified
tRNA; thymine at residue 21 before pseudouridine

<221> modified_base
<222> (22)...(22)
<223> n=p

<221> misc_feature
 <222> (43)...(43)
 <223> n=puromycin

<221> modified_base
 <222> (6)...(6)
 <223> n=p

<400> 7
 cuagancugg agguccugug tncgauccac agaauucgca ccn 43

<210> 8
 <211> 33
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Chemically synthesized fragment 1

<400> 8
 gcggauuuag cucaguuggg agagcgccag acu 33

<210> 9
 <211> 76..
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 <223> Chemically synthesized fragment 1 + 2 + 3;
 modified tRNA; thymine at residue 54 before
 pseudouridine

<221> modified_base
 <222> (39)...(39)
 <223> n=p

<221> modified_base
 <222> (55)...(55)
 <223> n=p

<221> misc_feature
 <222> (76)...(76)
 <223> n=puromycin

<221> misc_feature
 <222> (35)...(36)
 <223> psoralen binding at UA position

<400> 9
 gcggauuuag cucaguuggg agagcgccag acucuaganc uggagguccu gugtncgauc 60
 cacagaauuc gcaccn 76

<210> 10
 <211> 32
 <212> RNA
 <213> Artificial Sequence

<220>

<223> chemically synthesized fragment 1; 3' hydroxyl at terminus

<400> 10

gcggauuuag cucaguuggg agagcgccag ac

32

<210> 11

<211> 8

<212> RNA

<213> Artificial Sequence

<220>

<223> chemically synthesized fragment 2; psoralentated RNA

<221> modified_base

<222> (1)...(1)

<223> N=p

<221> modified_base

<222> (7)...(7)

<223> N=p

<400> 11

ncuaacnc

8

<210> 12

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Mixed DNA/RNA chemically synthesized fragment 3

<221> modified_base

<222> (15)...(15)

<223> n=p

<221> misc_feature

<222> (36)...(36)

<223> n=puromycin

<400> 12

uggagguccu gugtnCGauc cacagaaUuc gcaccn

36

<210> 13

<211> 18

<212> RNA

<213> Artificial Sequence

<220>

<223> chemically synthesized modified RNA fragment

<221> modified_base

<222> (4)...(4)

<223> n=p

<221> modified_base
<222> (11)...(12)
<223> n=p

<400> 13
ccnccagag nnagaccc

18

<210> 14
<211> 14
<212> RNA
<213> Artificial Sequence

<220>
<223> chemically synthesized fragment 2

<221> modified_base
<222> (7)...(7)
<223> n=p

<221> modified_base
<222> (9)...(9)
<223> n=p

<400> 14
ucuaagncng gagg

14

<210> 15
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> chemically synthesized; mixed DNA/RNA; alternate
psoralentated Fragment 1 + 2 + 3

<221> modified_base
<222> (32)...(32)
<223> N-3-methyl uridine

<221> misc_feature
<222> (36)...(37)
<223> psoralen bound to UA

<221> modified_base
<222> (40)...(40)
<223> N=p

<221> modified_base
<222> (42)...(42)
<223> N=p

<221> misc_feature
<222> (73)...(73)
<223> N=puromycin

<400> 15

gcggauuuag cucaguuggg agagcgccag anuucuaagn cnggaggucc ugugtycgau 60
ccacagaauu cgn 73

<210> 16
<211> 32
<212> RNA
<213> Artificial Sequence

<220>
<223> Chemically synthesized fragment 1 ; 3' hydroxyl at terminus

<400> 16
gcggauuuag cucaguuggg agagcgccag ac 32

<210> 17
<211> 8
<212> RNA
<213> Artificial Sequence

<220>
<223> Chemically synthesized fragment 2 ; 3' hydroxyl at terminus

<221> modified_base
<222> (1)...(1)
<223> n=p

<221> modified_base
<222> (7)...(7)
<223> n=p

<400> 17
ncuaaaanc 8

<210> 18
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Chemically synthesized; mixed DNA/RNA fragment 3

<221> modified_base
<222> (15)...(15)
<223> N=p

<221> misc_feature
<222> (36)...(36)
<223> N=puromycin

<400> 18
uggagguccu gugtnCGauc cacagaauuc gcaccn 36

<210> 19
<211> 21
<212> RNA

<213> Artificial Sequence

<220>

<223> Chemically synthesized; modified RNA fragment

<221> modified_base

<222> (9)...(11)

<223> N=p

<400> 19

ccccccgann nagaccccc c

21

<210> 20

<211> 26

<212> RNA

<213> Artificial Sequence

<220>

<223> chemically synthesized; seq A1

<400> 20

auauauauau auauauauau gggggg

26

<210> 21

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Chemically synthesized; seq A2

<400> 21

ccccccatat atatatatat atatat

26

<210> 22

<211> 31

<212> RNA

<213> Artificial Sequence

<220>

<223> Chemically synthesized; seq 1B

<221> misc_feature

<222> (1)...(1)

<223> no phosphorylation on 5' end

<400> 22

gcggauuuag cucaguuggg agagcgccag a

31

<210> 23

<211> 31

<212> RNA

<213> Artificial Sequence

<220>

<223> Chemically synthesized; seq 1B1

<221> misc_feature
<222> (1)...(1)
<223> no phosphorylation on 5' end

<400> 23
ggggcuuuag cucaguuggg agagcgccag a

31

<210> 24
<211> 36
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<213> Artificial Sequence

<220>
<223> Chemically synthesized RNA sequence

<221> misc_feature
<222> (35)...(36)
<223> crosslinker between residue 35 and 36

<221> misc_feature
<222> (36)...(36)
<223> phosphorylated

<400> 24
gcggauuuag cucaguuggg agagcgccag acucua

36

<210> 25
<211> 36
<212> RNA
<213> Artificial Sequence

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<221> misc_feature
<222> (1)...(1)
<223> hydroxylated

<221> misc_feature
<222> (35)...(36)
<223> crosslinker between residues 35 and 36

<221> misc_feature
<222> (36)...(36)
<223> phosphorylated

<400> 25
ggggcuuuag cucaguuggg agagcgccag acucua

36

<210> 26
<211> 61
<212> RNA
<213> Artificial Sequence

<220>
<223> Chemically synthesized RNA sequence

<221> misc_feature
 <222> (59)...(60)
 <223> crosslinker between residues 59 and 60

<400> 26
 ggguaaacu uagaaggagg ugcgccaccu gguuaaaaug aaaaugaaaa ugaaaaugua 60
 g 61

<210> 27
 <211> 55
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Chemically synthesized RNA sequence M1

<400> 27
 ggguaaacu uagaaggagg ugcgccaccu gguuaaaaug aaaaugaaaa ugaaa 55

<210> 28
 <211> 61
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Chemically synthesized RNA sequence

<221> misc_feature
 <222> (59)...(60)
 <223> crosslink between residue 59 and 60

<221> misc_feature
 <222> (61)...(61)
 <223> g bound to biotin

<221> misc_feature
 <222> (33)...(34)
 <223> n=g, a, u, or c

<400> 28
 ggguaaacu uagaaggagg ugcgccaccu ggnaaaaug aaaaugaaaa ugaaaaugua 60
 g 61

<210> 29
 <211> 61
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Chemically synthesized RNA sequence

<400> 29
 ggguaaacu uagaaggagg ugcgccaccu gguuaaaaug aaaaugaaaa ugaaaaugua 60
 g 61

<210> 30
 <211> 21

<212> RNA
 <213> Artificial Sequence

<220>
 <223> Chemically synthesized RNA sequence; generic
 version of SEQ ID NO: 19

<221> misc_feature
 <222> (1)...(6)
 <223> n=g, a, c, or u

<221> modified_base
 <222> (9)...(11)
 <223> n=p

<221> misc_feature
 <222> (15)...(21)
 <223> n=g, a, c, or u

<400> 30
 nnnnnngann nagannnnnn n

21

<210> 31
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Chemically synthesized; mixed DNA/RNA sequence

<221> misc_feature
 <222> (1)...(1)
 <223> phosphorylated

<221> misc_feature
 <222> (14)...(14)
 <223> thymine

<221> modified_base
 <222> (15)...(15)
 <223> n=p

<221> misc_feature
 <222> (36)...(36)
 <223> n=puromycin

<400> 31
 uggagguccu gugtncauc cacagaauc gcaccn

36

<210> 32
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Chemically synthesized; Mixed DNA/ RNA sequence

<221> misc_feature
<222> (1)...(1)
<223> phosphorylated

<221> misc_feature
<222> (14)...(14)
<223> thymine

<221> modified_base
<222> (15)...(15)
<223> n=p

<221> misc_feature
<222> (36)...(36)
<223> puromycin attached at 3' end

<400> 32
uggagguccu gugtnCGauc cacagaaucu ccacca 36

<210> 33
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> mixed DNA/RNA chemically synthesized primer for
SARS-CoV genome sequence

<221> modified_base
<222> (32)...(32)
<223> N-3-methyl uridine

<221> misc_feature
<222> (35)...(36)
<223> psoralen bound to UA

<221> modified_base
<222> (39)...(39)
<223> p

<221> modified_base
<222> (41)...(41)
<223> p

<221> misc_feature
<222> (72)...(72)
<223> n=puromycin

<400> 33
gcggauuuag cucaguuggg agagcgccag anucuaagnc nggagguccu gugtycgauc 60
cacagaauc gn 72